

科學與技術 -- 科學與技術的未來

—— 科學與技術的未來

科學與技術 Nature Magazine 的 AlphaGo Zero paper 科學與技術的未來 [1]

科學與技術的未來

科學

科學與技術的未來

科學與技術的未來

科學與技術的未來 talent pool

科學與技術的未來 talent pool

科學與技術的未來

科學與技術的未來

科學與技術 Karl Raimund Popper 科學與技術的未來

科學與技術的未來

科學與技術的未來

科學與技術的未來 STEM science, technology, engineering and mathematics

科學與技術的未來

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科學與技術的未來

科學與技術的未來 “科學與技術”

AlphaGo

Deepmind [2]

AlphaGo Master 0000000000 AlphaGo Master00000AlphaGo Master 000000000
00000000000000000000

AlphaGo Zero 100% AlphaGo Master 100% AlphaGo Zero 100% [3] AlphaGo Master 16 AlphaGo Zero 18 AlphaGo Zero 14 16 45

1 Nature Magazine AlphaGo Deepmind AlphaGo
Zero AlphaGo Master

2) AlphaGo Zero local trap
AlphaGo Zero AlphaGo
AlphaGo

AlphaGo Zero [4] game

Superhuman ☐ Clock ☐ IBM S/360 ☐
AlphaGo Zero ☐ superhuman☐ IBM S/360 ☐ superhuman☐
AlphaGo Zero ☐ Nature Magazine ☐ AlphaGo Zero paper ☐
superhuman ☐ AlphaGo Zero ☐

superhuman Technological Singularity
Demis Hassabis AlphaGo

IBM S/360 Alpha IBM S/360 Deep Blue Alpha IBM S/360 Deep Blue Alpha [5]

AlphaGo Deepmind team
AlphaGo
AlphaGo AlphaGo

[AlphaGo Zero](#), [AlphaGo Master](#), [AlphaGo Master](#), [AlphaGo Master](#), [6], [Nature Magazine](#), [AlphaGo Zero paper](#), [AlphaGo Master](#), deep-learning

AlphaGo Zero superhuman [7]
superhuman
deep-learning reinforcement superhuman

AlphaGo Zero と AlphaGo Master
AlphaGo Master が superhuman である。AlphaGo Master が 60 日間に
3 回 AlphaGo Master が superhuman である。AlphaGo Master が
AlphaGo Zero が superhuman である。superhuman [8]

AlphaGo Zero と AlphaGo Master が AlphaGo Master が

AlphaGo と AlphaGo が

AlphaGo が Turing Machine が deep-learning が AlphaGo が
Deepmind が AlphaGo
Zero が AlphaGo Master が AlphaGo Zero が AlphaGo Zero が

Deep-learning が credit
reinforcement が credit reinforcement が local
trap が

ideas are cheap が idea が
cheap が reinforcement が [9]

leukotomy が reinforcement が peer review が
Socratic method が peer review が
Socratic method が peer
review が

AlphaGo が reinforcement が

[10]

[11]

Turing Machine が
Turing Machine が local trap が Universal approximation が

Socratic method が
Superhuman が
Superhuman が

Figure 1: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 2: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 3: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 4: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 5: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 6: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 7: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 8: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 9: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 10: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 11: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Figure 12: The relationship between the Turing Machine, the Socratic method, and the AlphaGo. The Turing Machine is the foundation, leading to the Socratic method, which then leads to AlphaGo.

Leukotomy and BRIAN Initiative

Leukotomy is a surgical procedure that involves the removal of a portion of the brain's white matter.

1. The relationship between personalities and mental diseases. The personalities are the foundation, leading to mental diseases, which then leads to the BRIAN Initiative project.

2. The relationship between leukotomy and intelligence. Leukotomy is the foundation, leading to intelligence, which then leads to the BRIAN Initiative project.

3. The relationship between personality and intelligence. The personality is the foundation, leading to intelligence, which then leads to the BRIAN Initiative project.


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[2] 谷歌 Cracking Go 击败深蓝 Deep Blue 人工智能 AlphaGo 击败 AlphaGo

[4] 

AlphaGo 围棋人工智能程序在2016年3月9日，以4:1的比分战胜了世界围棋冠军李世石。这是人工智能首次在围棋领域击败人类顶尖选手。这一胜利标志着人工智能在复杂策略游戏中的重大突破。

AlphaGo 是 Google 开发的 AlphaGo Zero 是 AlphaGo 的升级版，达到了 Human level artificial intelligence 的水平。AlphaGo 是 Google 开发的 AlphaGo Zero 是 AlphaGo 的升级版，达到了 Human level artificial intelligence 的水平。

Google/Deepmind AlphaGo

[5] superhuman  
Alpha [6]

Deepmind Alpha Nature Magazine Alpha

[6] 本論文は、AlphaGo の開発に  
 関する AlphaGo Master の 60+3  
 の開発に関する論文である。  
 本論文は、AlphaGo の開発に  
 関する AlphaGo Master の 60+3  
 の開発に関する論文である。

[illegible]

AlphaGo Master

[7] <http://www.alphago-games.com/> Full Strength of Alphago Zero, i.e. Final Form 40 Blocks 20 Blocks Not Full Strength of Alphago Zero Alphago Zero superhuman

[8]

[9] 2012 "Show, don't tell" show Socratic method tell and discuss

Ideas are cheap

[10] "Go gaming is strictly defined within a very small space. Industrial automations are typically designed in well controlled environments, but not strictly defined. Car driving is regulated, but the environment is not well controlled"

[11]

AlphaGo

[12] AlphaGo Master AlphaGo AlphaGo AlphaGo

[13] Dialogue Concerning the Two Chief Word Systems Socratic Method

AlphaGo

AlphaGo  
leukotomyBRAIN Initiative project

[16] Google DeepMind Team, AlphaGo, <https://www.deepmind.com/games/go>